intensity profile of the incoming light signal may be sampled rather than its wavefront tilt. To sample the latter, the optics may be configured so as to focus the incoming tracking beams onto a coincident point, as shown in FIGURE 6C. Further details of how the spatially separate tracking beams are used to determine beam position are disclosed in co-pending U.S. Patent Application serial number ~~09/851,655~~ 09/851,665, entitled "MACRO-QUAD DETECTOR FOR FREE SPACE LASER COMMUNICATIONS, the specification and drawings of which are incorporated herein by reference.

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In addition to using multiple lenses and optics for incoming signals, the same can be used for transmitted signals. For example, an integrated optic component 151 shown in FIGURE 10 includes a plurality of Tx optics 153, 155, 157 and 159 and an Rx optic 161. Respective light sources 163, 165, 167, and 169 are disposed approximately at the focal points of the Tx optics so as to produce respective transmit signals 173, 175, 177, and 179. In FIGURE 11, an integrated optic component 181 includes a plurality of Tx optics 153A, 155A, 157A and 159A and an Rx optic 161A. Respective fold mirrors 183, 185, 187, and 189 are disposed proximate to corresponding Tx optics so as to receive a light beam portion emitted from a light source 191 and redirected by a respective facet defined in a TIR combiner 193. The received light beam portions are then redirected by the respective fold mirrors toward their corresponding Tx optic to produce transmit signals 195, 197, 199, and 201. In this manner, multiple transmit signals can be generated from a single light beam 203.

It will be appreciated that multiple optic, fold mirrors and faceted features may be used for both transmitted and received optical signals in accordance with the principles of the invention. For example, an integrated optic component may include any combination of the Tx lens and associated optic configurations for integrated optic components 151 and 181 along with the Rx lens and associated optic